

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): A method for control of an automatic transmission [[(3)]] of a vehicle provided with an engine [[(2)]] that drives the transmission [[(3)]], ~~in which method comprising:~~

~~[[-]]] detecting a downhill-travel situation of the vehicle is detected and;~~
~~[[-]]] a transmission ratio is chosen such that the engine (3) absorbs energy, characterized in that storing a longitudinal speed (V_{min}) at [[the]] a beginning of downhill travel is stored the downhill-travel situation in a memory when the vehicle begins a downhill-travel situation and;~~

~~[[-]]] as long as the vehicle is in during the downhill-travel situation, comparing [[the]] a current speed [[(V)]] of the vehicle is compared with the speed (V_{min}) at the beginning of downhill travel in such a way that: the downhill-travel situation; and~~

~~based on the comparing, choosing a transmission ratio such that the engine absorbs energy, comprising [[-]]] instructing the transmission to initiate downshifting if the current speed [[(V)]] exceeds the speed (V_{min}) at the beginning of downhill travel the downhill-travel situation by a predetermined deviation [[(VS)]], the transmission is then instructed to initiate downshifting~~

~~wherein the detecting the downhill-travel situation includes detecting whether a brake is applied via a brake pedal and, when the brake is applied, the downhill-travel situation is not detected.~~

2. (Currently Amended): A control method according to claim 1, ~~characterized in that wherein the downhill-travel situation is detected if [[the]] a slope [[(P)]] on which the vehicle is traveling is greater than a predetermined threshold slope (PS), if the power demand (Aee)~~

~~of the engine is smaller than a predetermined power threshold (AeeS), and braking is absent.~~

3. (Currently Amended): A control method according to claim 1, ~~characterized in that it includes an additional test step (28) further comprising:~~

verifying that, before the downshifting is initiated, [[the]] an energy-absorption capacity of the engine is smaller than a predetermined power threshold.

4. (Currently Amended): A control method according to claim 3, ~~characterized in that wherein the absorption energy-absorption capacity of the engine is determined by [[the]] an engine speed (NTA).~~

5. (Currently Amended): A control method according to claim 3, ~~characterized in that wherein the predetermined power threshold (NS) of power absorption capacity is an increasing function of [[the]] a slope [[(P)]] on which the vehicle is traveling.~~

6. (Currently Amended): A control method according to claim 1, ~~characterized in that wherein the deviation [[(VS)]] from predetermined the speed at the beginning of the downhill-travel situation is between 5 and 10 km/h.~~

7. (Currently Amended): A control method according to claim 1, ~~characterized in that wherein the vehicle is equipped with a speed-governing system.~~

8. (Currently Amended): A system for control of an automatic transmission [[(3)]] of a vehicle provided with an engine [[(2)]] that drives the transmission [[(3)]], ~~the system being provided with comprising:~~

an electronic unit configured to:

[-] means for identifying identify a downhill-travel situation of the vehicle,

[[and]]

[-] means for choosing a transmission ratio so that the engine absorbs energy,
characterized in that it is additionally provided with:

[-] means for measuring and storing measure and store in a memory [[the]] a
longitudinal speed (V_{min}) when the vehicle begins a at a beginning of the downhill-
travel situation,

[-] means for comparing the compare a current speed [[(V)]] of the vehicle
with the speed (V_{min}) at the beginning of downhill travel the downhill-travel
situation, and[[;]]

[-] means for instructing instruct the transmission to initiate downshifting if
the current speed [[(V)]] exceeds the speed (V_{min}) at the beginning of downhill travel
the downhill-travel situation by a predetermined deviation [[(VS)]]],
wherein the electronic unit does not identify the downhill-travel situation if a brake is
applied via a brake pedal.

9. (Currently Amended): A vehicle, comprising:
provided with an engine;
[[and]] an automatic transmission[[,]] driven by the engine; and
characterized in that it is provided with the system according to claim 8 [[for]] to
control [[of]] the automatic transmission.

10. (New): A control method according to claim 1, wherein the downhill-travel
situation is not detected if an accelerator pedal is depressed such that a power demand of the

engine is larger than a predetermined power threshold.

11. (New): A system according to claim 8, wherein the electronic unit is configured to verify that, before the downshifting is initiated, an energy-absorption capacity of the engine is smaller than a predetermined power threshold.

12. (New): A system according to claim 11, wherein the energy-absorption capacity of the engine is determined by an engine speed.

13. (New): A system according to claim 12, further comprising:
an engine controller configured to measure the engine speed.

14. (New): A system according to claim 11, wherein the predetermined power threshold is an increasing function of a slope on which the vehicle is traveling.

15. (New): A system according to claim 8, wherein the electronic unit does not detect the downhill-travel situation if a power demand of the engine from an accelerator pedal being depressed is larger than a predetermined power threshold.